Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

Final

AIR QUALITY PERMIT

Issued under 401 KAR 52:030

Permittee Name:	**Ticona Polymers, Inc.**
Mailing Address:	**8040 Dixie Highway** **Florence, KY 41042**
Source Name:	**Ticona Polymers, Inc.**
Mailing Address:	**8040 Dixie Highway** **Florence, KY 41042**
Source Location:	**same as above**
Permit ID:	**F-07-004**
Agency Interest #:	**259**
Activity ID:	**APE20060001**
Review Type:	**Conditional Major, Construction / Operating**
Source ID:	**21-015-00043**
Regional Office:	**Florence Regional Office** **8020 Veterans Memorial Drive, Suite 110** **Florence, KY 41042** **(859) 525-4923**
County:	**Boone**
Application Complete Date:	**January 28, 2007**
Issuance Date:	**August 9, 2007**
Revision Date:	
Expiration Date:	**August 9, 2012**

John S. Lyons, Director
Division for Air Quality

Revised 09/29/06

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Rev #	Permit type	Log or Activity #	Complete Date	Issuance Date	Summary of Action
----	**Operation**	--	**05/21/97**	**08/11/97**	**State-Origin Permit S-97-057**
1	**Modification**	--	**01/04/99**	**01/20/99**	**State-Origin Permit Revision S-97-057 (Revision1)**
----	**Initial Issuance**	**259**	**01/28/07**	**08/09/07**	**Initial Issuance, Conditional Major Permit F-07-004**

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:030, Federally-enforceable permits for non-major sources.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

001 (P001) **Blending Area Tote Loading Stations - Two (2)**
Description: Dry raw materials (pigments, additives and raw polymer resin) are batch loaded into totes, either directly or as a pre-mixed masterbatch concentrate from EP 002. Totes are weighed while being loaded, then transferred to the extruder or the mixing tumbler. Vents to DC01, "SLY" (Inside) Dust Collector.
Construction date: 1984

002 (P002) **Six (6) Henschel Mixers**
Description: Disperses pigments or additives into raw polymer resins to form Masterbatch concentrates. This process involves dry raw material charging to, and batch dumping from, the mixers. One large mixer utilized for Fortron Autobatches with a reduced batch cycle time. Vents to DC01, "SLY" (Inside) Dust Collector.
Construction date: 1985 - 1996

APPLICABLE REGULATIONS:
401 KAR 59:010, *New Process Operations*, applies to each affected facility not subject to another emission standard for particulate matter (PM) in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

1. Operating Limitations:
The total raw material input usage to each EP 001 and 002 shall be limited such that the permittee is in compliance with the emission limitations specified at **2.c Emission Limitations**.

2. Emission Limitations:
a. Pursuant to 401 KAR 59:010, Section 3(2), emissions of particulate matter (PM) from each stack represented by EP 001 and 002 shall not exceed the allowable rate determined as follows:

For process rates from 1,000 to 60,000 lb/hr: $E = 3.59P^{0.62}$

Where E = maximum allowable rate of emissions in lb/hr, and
P = process weight in tons/hr

For process rates below 1,000 lbs/hr, the maximum allowable emission rate is 2.34 lbs/hr.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. Pursuant to 401 KAR 59:010, Section 3(1), opacity of visible emissions from each stack shall not equal or exceed 20%.

c. Refer to **Section D.3, Source Emission Limitations**, for source-wide PM and hazardous air pollutant (HAP) emission limitations.

Compliance Demonstration Method:

a. To provide reasonable assurance that the particulate matter emission limitations are being met, the permittee shall monitor the amount of process weight added to each emissions unit. The process weight rate shall be determined by dividing the tons of material added to each emission unit in a calendar month divided by the total hours the unit operated that month. Average particulate emissions shall be calculated as follows:

$$Emissions(lb/hr) = \frac{PW \times PEF}{OH}$$

Where: PW = process weight (tons/month);
PEF = particulate emission factor (lb/ton process weight, based on the most recent stack test, AP-42, material balance or other factor approved by the Division); and
OH = unit operating hours during that month.

b. For compliance with the opacity limit, refer to **4. Specific Monitoring Requirements**.

c. Refer to **Section D.3, Source Emission Limitations, Compliance Demonstration Method**.

3. Testing Requirements:

a. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division in the paragraph below.

b. Within 180 days of the issuance of the final permit, the permittee shall perform stack testing at EP 001 to determine emissions of particulate matter (PM/PM10) from tote loading during chip processing and during flake processing. The permittee shall utilize the verified particulate emission factor results when demonstrating compliance in accordance with **2. Emission Limitations, *Compliance Demonstration Method***.

4. Specific Monitoring Requirements:

The permittee shall perform a qualitative visible observation of the opacity of emissions from each stack at least once each calendar week when the emission units are in operation and maintain a log of the observation. If visible emissions are seen, then the opacity shall be determined by EPA Reference Method 9. If Method 9 indicates emissions in excess of the standard, then an inspection shall be initiated for any necessary repairs. If a Method 9 test cannot be performed, the reason for not performing the test shall be documented.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records in accordance with **4. Specific Monitoring Requirements**.

b. The permittee shall maintain records of the type and weight of each material and the total weight processed each month at each EP 001 and 002.

c. The permittee shall maintain records of the total processing hours each month for each EP 001 and 002.

d. All records shall be maintained in accordance with **Section F.2**.

e. Refer to **Section D, Source Emission Limitations and Testing Requirements**, for source-wide recordkeeping requirements.

6. Specific Reporting Requirements:

Refer to **Section D** for source-wide reporting requirements and **Section F.5**.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PLASTIC EXTRUSION

003 (P003) **Nine (9) Single Screw Extruders**

Description: Transfer of polymer resins, pigments and additives by upstream feeders from tote tanks into extruders that produce compounded plastics. The nine (9) single screw extruders are collectively considered as EP 003. One extruder vents to DC04, FARR (Outside) Dust Collector #3; and 5 extruders vent to DC01, "SLY" (Inside) Dust collector.

Construction date: 1984-1995

004a (P004a) **Two Twin Screw Extruders**

Description: Transfer of polymer resins, additives and fiberglass by upstream, downstream and fiberglass feeders (up to two fiberglass feeders used during transfer) from tote tanks into extruders that produce compounded plastics. Vents to DC02, FARR (Outside) Dust Collector #1.
Extruder IDs: MS 801and MS 1701

Construction date: 1987 and 2002, respectively

Maximum processing rate: 3,600 lb/hr, total

Control device: Ecosorb odor control system; no control efficiency assumed for organic and particulate matter emissions (July 25, 2006 test)

004b (P004b) **Two Twin Screw Extruders**

Description: Transfer of polymer resins, additives and fiberglass by upstream, downstream and fiberglass feeders (up to two fiberglass feeders used during transfer) from tote tanks into extruders that produce compounded plastics. Vents to DC03, FARR (Outside) Dust Collector #2.
Extruder IDs: MS 901 and MS 1901

Construction date: 1987 and 2004, respectively

Control device: Ecosorb odor control system; no control efficiency assumed for organic and particulate matter emissions (July 25, 2006 test)

004c (P004c) **Two Twin Screw Extruders**

Description: Transfer of polymer resins, additives and fiberglass by upstream, downstream and fiberglass feeders (up to two fiberglass feeders used during transfer) from tote tanks into extruders that produce compounded plastics. Vents to DC04, FARR (Outside) Dust Collector #3.
Extruder IDs: MS 101 and MS 1801

Construction date: 1984 and 2004, respectively

Control device: Ecosorb odor control system; no control efficiency assumed for organic and particulate matter emissions (July 25, 2006 test)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

009 (P009)	**Four (4) Research and Development (PPT) Extruders**
Description:	Manual transfer of polymer resins, additives and fiberglass into R&D twin screw extruders that produce compounded plastics.
Construction date:	2004
Control device:	Ecosorb odor control system; no control efficiency assumed for organic and particulate matter emissions

015 (P015)	**Twin Screw Extruder**
Description:	70 mm Mega Twin Extruder extrudes polymer chips with additives that do not contain metallic HAPs. Materials extruded through extruder MS 2001 are not processed in or fed from emission sources in EP 001, 013a, 013b, 013c, 013d, 016, 017 and 018. Vents to DC05, FARR (Outside) Dust Collector #4. Extruder ID: MS 2001
Construction date:	To be installed in 2007
Control device:	Ecosorb odor control system; no control efficiency assumed for organic and particulate matter emissions

APPLICABLE REGULATIONS:

401 KAR 53:010, *Ambient Air Quality Standards*, applies to ambient air quality with respect to odors for the extruders.

401 KAR 59:010, *New Process Operations*, applies to each affected facility not subject to another emission standard for particulate matter (PM) in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

1. Operating Limitations:

a. Pursuant to 401 KAR 53:010, Appendix A, at any time when 1 volume unit of ambient air is mixed with 7 volume units of odorless air, the mixture must have no detectable odor.

b. The total raw material input usages to EP 003, 004a, 004b, 004c, 009 and 015 shall be limited such that the permittee is in compliance with the emission limitations specified at **2.c Emission Limitations**.

c. Also see **7. Specific Control Equipment Operating Conditions**.

Compliance Demonstration Method:

Testing shall be used to demonstrate compliance with the odor limit, refer to **3.c. Testing Requirements**. For EP 004a, 004b, 004c, 009, and 015, the permittee shall operate the Ecosorb odor control system at all times that the emission units are processing Fortron polymer.

2. Emission Limitations:

a. Pursuant to 401 KAR 59:010, Section 3(2), emissions of particulate matter (PM) from each stack from EP 003, 004a, 004b, 004c, 009 and 015 shall not exceed the allowable rates determined as follows:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

For process rates from 1,000 to 60,000 lb/hr: $E = 3.59P^{0.62}$

Where E = maximum allowable rate of emissions in lb/hr, and
P = process weight in tons/hr

For process rates below 1,000 lbs/hr, the maximum allowable emission rate is 2.34 lbs/hr.

b. Pursuant to 401 KAR 59:010, Section 3(1), opacity of visible emissions from each stack shall not equal or exceed 20%.

c. Refer to **Section D.3, Source Emission Limitations**, for source-wide particulate matter and hazardous air pollutant (HAP) emission limitations.

Compliance Demonstration Method:

a. To provide reasonable assurance that the particulate matter emission limitations are being met, the permittee shall monitor the amount of process weight added to each emissions unit. The process weight rate shall be determined by dividing the tons of material added to each emission unit in a calendar month divided by the total hours the unit operated that month. Average particulate emissions shall be calculated as follows:

$$Emissions\,(lb/hr) = \frac{PW \times PEF}{OH}$$

Where: PW = process weight (tons/month);
PEF = particulate emission factor (lb/ton process weight, based on the most recent stack test, AP-42, material balance or other factor approved by the Division); and
OH = unit operating hours during that month.

b. For compliance with the opacity limit, refer to **4. Specific Monitoring Requirements**.

c. For compliance with the source-wide particulate matter and HAP emission limitations, refer to **Section D.3, Source Emission Limitations, Compliance Demonstration Method**.

3. Testing Requirements:

a. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division in the paragraph below.

b. Within 180 days of the issuance of the final permit, the permittee shall perform stack testing to determine emissions of particulate matter (PM/PM10) from the extruders during chip processing and during flake processing. The testing shall be conducted both with and without a fiberglass feeder in operation. Upon approval by the Division, the testing may be conducted on a representative extruder, with results

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

applied to all extruders. The permittee shall utilize the verified particulate emission factor results in accordance with the requirements of **2. Emission Limitations,** ***Compliance Demonstration Method***.

c. Pursuant to 401 KAR 53:010, Section 2, the permittee shall conduct testing of odors from the facility when operating at the maximum Fortron polymer production rate within 180 days of the issuance of the final permit, and as requested by the Division.

4. Specific Monitoring Requirements:

a. The permittee shall perform a qualitative visible observation of the opacity of emissions from each stack at least once each calendar week when the emission units are in operation and maintain a log of the observation. If visible emissions are seen, then the opacity shall be determined by EPA Reference Method 9. If Method 9 indicates emissions in excess of the standard, then an inspection shall be initiated for any necessary repairs. If a Method 9 test cannot be performed, the reason for not performing the test shall be documented.

b Also refer to **7. Specific Control Equipment Operating Conditions**.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records in accordance with **4.a Specific Monitoring Requirements**.

b. The permittee shall maintain records of the type and weight of each material and the total weight processed each month by each extruder.

c The permittee shall maintain records of the total processing hours each month for each extruder.

d When any emission units listed in EP 015, 009, 004a, 004b, and 004c are processing Fortron flake, the permittee shall document at least once per day in a written or electronic record that the corresponding Ecosorb system is in operation and shall provide this information to the Division upon request.

e All records shall be maintained in accordance with **Section F.2.**

f Refer to **Section D, Source Emission Limitations and Testing Requirements**, for source-wide recordkeeping requirements.

6. Specific Reporting Requirements:

Refer to **Section D** for source-wide reporting requirements and **Section F.5**.

7. Specific Control Equipment Operating Conditions:

Refer to **Section E, Source Control Equipment Requirements,** for further control equipment operating conditions.

8. Compliance Certification Requirements:

Refer to **Section G. (d)** for additional requirements for the construction of extruder MS-2001 as EP 015.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

MATERIAL HANDLING

005 (P005)	**Product Handling and Packaging**
Description:	Plastic strands produced from all extruders are cut, classified, de-dusted as necessary and packaged for shipping. De-dusting operations vent to DC02, FARR (Outside) Dust Collector #1.
Construction date:	1984
016 (P016)	**Bulk Bag Transfer to Totes**
Description:	Dumping of bulk bags into totes to be sent to the extruders. Vents to DC03, FARR (Outside) Dust Collector #2.
Construction date:	1984
018 (P018)	**Tote Transfer to Tote**
Description:	Transfer of raw materials from tote to tote
Construction date:	1984
008 (P008)	**Supersack Bulk Bag Unloaders for Extruder 801**
Description:	Supersacks of polymer feed, fiberglass or additives are discharged to a hopper discharging to the extruder feeders. Vents to dust collector.
Construction date:	1984
012 (P012)	**Henschel Mixing Area Pneumatic Transfer System (formerly "Celcon Autobatching System")**
Description:	Transfer of chip from totes to the Henschel mixers
Construction date:	1984

APPLICABLE REGULATIONS:

401 KAR 59:010, *New Process Operations*, applies to each affected facility not subject to another emission standard for particulate matter (PM) in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

1. Operating Limitations:

The total raw material input usage to each EP 005, 016, 018, 008 and 012 shall be limited such that the permittee is in compliance with the emission limitations specified at **2.c Emission Limitations**.

2. Emission Limitations:

a. Pursuant to 401 KAR 59:010, Section 3(2), emissions of particulate matter (PM) from the stacks from EP 005, 016, 018, 008 and 012 each shall not exceed the allowable rate determined as follows:

For process rates from 1,000 to 60,000 lb/hr: $E = 3.59P^{0.62}$

Where E = maximum allowable rate of emissions in lb/hr, and

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

P = process weight in tons/hr

For process rates below 1,000 lbs/hr, the maximum allowable emission rate is 2.34 lbs/hr.

b. Pursuant to 401 KAR 59:010, Section 3(1), opacity of visible emissions from each stack shall not equal or exceed 20%.

c. Refer to **Section D.3, Source Emission Limitations**, for source-wide PM and hazardous air pollutant (HAP) emission limitations.

Compliance Demonstration Method:

a. To provide reasonable assurance that the particulate matter emission limitations are being met, the permittee shall monitor the amount of process weight added to each emissions unit. The process weight rate shall be determined by dividing the tons of material added to each emission unit in a calendar month divided by the total hours the unit operated that month. Average particulate emissions shall be calculated as follows:

$$Emissions(lb/hr) = \frac{PW \times PEF}{OH}$$

Where: PW = process weight (tons/month);
PEF = particulate emission factor (lb/ton process weight, based on the most recent stack test, AP-42, material balance or other factor approved by the Division); and
OH = unit operating hours during that month.

b. For compliance with the opacity limit, refer to **4. Specific Monitoring Requirements**.

c. Refer to **Section D.3, Source Emission Limitations, Compliance Demonstration Method**.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

The permittee shall perform a qualitative visible observation of the opacity of emissions from each stack at least once each calendar week when the emission units are in operation and maintain a log of the observation. If visible emissions are seen, then the opacity shall be determined by EPA Reference Method 9. If Method 9 indicates emissions in excess of the standard, then an inspection shall be initiated for any necessary repairs. If a Method 9 test cannot be performed, the reason for not performing the test shall be documented.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records in accordance with **4. Specific Monitoring Requirements**.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. The permittee shall maintain records of the type and weight of each material and the total weight processed each month at each EP 005, 016, 018, 008 and 012.

c The permittee shall maintain records of the total processing hours each month for each EP 005, 016, 018, 008 and 012.

d All records shall be maintained in accordance with **Section F.2**.

e Refer to **Section D, Source Emission Limitations and Testing Requirements**, for source-wide recordkeeping requirements.

6. Specific Reporting Requirements:

Refer to **Section D** for source-wide reporting requirements and **Section F.5**.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

Description		Generally Applicable Regulation
1. EP 007 (P007)	Four (4) Natural-Gas Fired Maintenance Parts Burning Ovens – 0.27, 0.27, 0.276 and 0.28 MMBtu/hr	NA
2. EP 010 (P010)	5.5 MMBtu/hr Natural-Gas Fired Boiler for Building Heat	401 KAR 59:015
3. EP 011 (P011)	5.5 MMBtu/hr Natural-Gas Fired Boiler for Building Heat	401 KAR 59:015
4. EP 013a (P013a)	PPT Area Weigh Scales, vented to DC06	401 KAR 59:010
5. EP 013b (P013a)	Henschel Area Weigh Scales, vented to DC01	401 KAR 59:010
6. EP 013c (P013a)	Laboratory Weigh Scales, vented to DC01	401 KAR 59:010
7. EP 013d (P013a)	Pigment Room Weigh Scales, vented to DC01	401 KAR 59:010
8. EP 014 (P014)	Central Vacuum System with 99.1% efficient integral dust filter	401 KAR 59:010
9. EP 017 (P017)	Tote Transfer to Gaylords	401 KAR 59:010
10. EP 019 (P019)	Maintenance Burnoff Station - <1000 lb Propane/yr	401 KAR 59:010
11. EP 020 (P020)	Bench-Scale Production Research and Development Laboratory Fume Hoods and Vents	401 KAR 59:010
12. EP 021 (P021)	Used Lubricating Oils Collection Tank – 500 gallons, with a vapor pressure of 1.5 psia or less at storage temperature	NA
13. EP 022 (P022)	Laboratory Fume Hoods and Vents Used Exclusively for Chemical or Physical Analysis	401 KAR 59:010
14. EP 023 (P023)	Fiberglass feeders at extruders at EP P004 – 33% of processing rate of P004 a, b and c	401 KAR 59:010
15. EP 024 (P024)	PPT Area Henschel Mixers - Four (4) – 10 lb/hr, each	401 KAR 59:010
16. EP 025 (P025)	PPT Blown film extrusion equipment used exclusively for research and development	401 KAR 59:010

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. a. Particulate matter and volatile organic compound (VOC) emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.
   b. Hazardous air pollutant (HAP) emissions, as measured by 40 CFR promulgated test methods and approved by the Division, shall not exceed the respective limitations specified herein.

3. **Source Emission Limitations:**
   a. To preclude the applicability of 401 KAR 52:020, *Title V Permits*, total annual source-wide emissions, including emissions of insignificant activities, shall not exceed the following specific limitations on a twelve (12) consecutive month basis:

      (1) Particulate matter (PM/PM10) emissions: 90 tons per year;
      (2) Any single hazardous air pollutant (HAP): 9 tons per year; and
      (3) Combined hazardous air pollutants (HAPs): 22.5 tons per year.

   b. Pursuant to 401 KAR 63:020, Section D, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.

Compliance Demonstration Method:

a. Compliance with the source-wide emission limitations shall be demonstrated by calculating the annual source-wide emissions for each month of the previous 12-month period (i.e.: for the month of January, the compliance demonstration shall be completed in February and shall include all data from February of the previous year to the last day of January). The monthly compliance demonstration shall include, at a minimum, the following:
   (1) On a source-wide basis, the monthly and consecutive 12-month polymer resin chip, powder, pigment, additive and fiberglass processing rates, the extruded plastic production rates, and the weight percent of individual HAP in the HAP-containing materials at the applicable emission units specified in paragraph (2) below.
   (2) The computation of monthly and consecutive 12-month source-wide PM/PM10, individual HAP, and combined HAP emissions rates totaled from all of the following significant emission units:

      001 (P001) Blending Area Tote Loading Stations –Two (2)

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

002 (P002)	Six (6) Henschel Mixers
003 (P003)	Nine (9) Single Screw Extruders
004a (P004a)	Two Twin Screw Extruders
004b (P004b)	Two Twin Screw Extruders
004c (P004c)	Two Twin Screw Extruders
009 (P009)	Four (4) Research and Development (PPT) Extruders
015 (P015)	Twin Screw Extruder
005 (P005)	Product Handling and Packaging
016 (P016)	Bulk Bag Transfer to Totes
018 (P018)	Tote Transfer to Tote
008 (P008)	Supersack Bulk Bag Unloaders for Extruder 801
012 (P012)	Henschel Mixing Area Pneumatic Transfer System;

and the potential or actual emissions from the insignificant activities.

4. **Source Recordkeeping Requirements:**

a. Actual HAP and particulate matter emissions shall be determined and recorded on a monthly and consecutive 12-month basis in accordance with **3. Source Emission Limitations, Compliance Demonstration Method**.

b. Monthly records of processing rates of each emission unit in accordance with **3. Source Emission Limitations, Compliance Demonstration Method** shall be maintained.

5. **Source Reporting Requirements**:

The permittee shall report to the Division in accordance with **Section F** the monthly and consecutive 12-month totals of HAP and particulate matter emitted from the source and the processing rates in accordance with **3. Source Emission Limitations**.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

2. **Specific Control Equipment Operating Conditions:**
When any emission units listed in EP 015, 009, 004a, 004b, and 004c are processing Fortron flake, the permittee shall document at least once per day in a written or electronic record that the corresponding Ecosorb system is in operation and shall provide this information to the Division upon request.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place (as defined in this permit), and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:030 Section 3(1)(f)1a and Section 1a-7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

3. In accordance with the requirements of 401 KAR 52:030 Section 3(1)f the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:030 Section 22. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

9. Pursuant to 401 KAR 52:030, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit in accordance with the following requirements:
   a. Identification of each term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality Florence Regional Office 8020 Veterans Memorial Drive, Ste 110 Florence, KY 41042	Division for Air Quality Central Files 803 Schenkel Lane Frankfort, KY 40601

10. In accordance with 401KAR 52:030, Section 3(1)(d), the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee. If a KYEIS emission survey is not mailed to the permittee, then the permittee shall comply with all other emission reporting requirements in this permit.

11. The Cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:
    a. The owner or operator shall submit to the Cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
        (1) The size and location of both the original and replacement units; and
        (2) Any resulting change in emissions;
    b. The potential to emit (PTE) of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;
    c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement;
    d. The replacement unit shall comply with all applicable requirements; and
    e. The source shall notify Regional office of all shutdowns and start-ups.
    f. Within six (6) months after installing the replacement unit, the owner or operator shall:
        (1) Re-install the original unit and remove or dismantle the replacement unit; or
        (2) Submit an application to permit the replacement unit as a permanent change.

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

   a. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030 Section 3(1)(b) and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit [Section 1a-2 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

   b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-5 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

   c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030 Section 18. The permit will be reopened for cause and revised accordingly under the following circumstances:
      (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:030 Section 12;
      (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
      (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

      Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

   d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 6 and 7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

   e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:030 Section 3(1)(c)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:030 Section 7(1)].

g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-11 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

i. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a-12-b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038 Section 3(6) [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:030 Section 11(3)].

l. This permit does not convey property rights or exclusive privileges [Section 1a-8 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.

o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic

SECTION G - GENERAL PROVISIONS (CONTINUED)

Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

q. Pursuant to 401 KAR 52:030, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
(1) Applicable requirements that are included and specifically identified in this permit; and
(2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:030 Section 12].

b. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:030 Section 8(2)].

3. Permit Revisions

a. Minor permit revision procedures specified in 401 KAR 52:030 Section 14(3) may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:030 Section 14(2).

b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, EP 015 (P015), Twin Screw Extruder, in accordance with the terms and conditions of this permit.

SECTION G - GENERAL PROVISIONS (CONTINUED)

a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
   (1) The date when construction commenced.
   (2) The date of start-up of the affected facilities listed in this permit.
   (3) The date when the maximum production rate specified in the permit application was achieved.

c. Pursuant to 401 KAR 52:030, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.

d. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the draft permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.

e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.

f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

5. Testing Requirements

a. Pursuant to 401 KAR 50:045 Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to

SECTION G - GENERAL PROVISIONS (CONTINUED)

the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

b. Pursuant to 401 KAR 50:045 Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

7. Emergency Provisions

a. Pursuant to 401 KAR 52:030 Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
   (1) An emergency occurred and the permittee can identify the cause of the emergency;
   (2) The permitted facility was at the time being properly operated;
   (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
   (4) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.
   (5) Notification of the Division does not relieve the source of any other local, state or federal notification requirements.

b. Emergency conditions listed in General Provision G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:030 Section 23(3)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:030 Section 23(2)].

8. Ozone depleting substances

a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
   (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

9. Risk Management Provisions

a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

   RMP Reporting Center
   P.O. Box 1515
   Lanham-Seabrook, MD 20703-1515.

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None